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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/573,276	02/05/2007	Stephan Michels	1761-0049	9395

7590 06/09/2009

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EXAMINER	
BAYOU, AMENE SETEGNE	
ART UNIT	PAPER NUMBER
3746	
MAIL DATE	DELIVERY MODE
06/09/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/573,276	MICHELS ET AL.	
	Examiner	Art Unit	
	AMENE S. BAYOU	3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) *14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 March 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

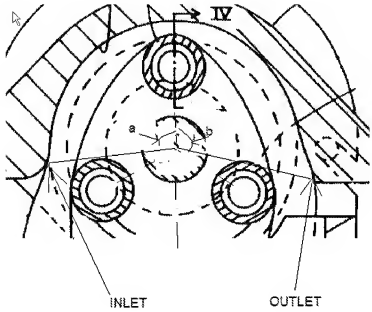
> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,2-6,8,12,13,15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ledebuhr et al. (US patent number 5846061) or Streicher (US patent number 4540350).

3. In re claim 1, Ledebuhr et al disclose a metering pump including:

   - Peristaltic pump (10) in figures 1-3, with a rotor (22) received in a housing (14), which is provided with at least one rotatably supported conveyor roller (26), as well as with a tubing holder (16b) for receiving of at least one flexible tubing section (62) that is squeezable by the conveyor roller (26) for peristaltically conveying a medium, characterized in that the tubing holder (16b) is provided with a tubing bed body member (28) for receiving of at least one flexible tubing section (62), whereby the inlet and/or the outlet region of the tubing bed body member (28) is designed such that the cross sectional area of the tubing relevant for the conveying is continuously decreased and increased (clearly seen in figure 3), respectively, by the conveyor roller (26) rolling over the particular tube section (62), the rotor (22) is provided with three conveyor rollers (26),

and the inlet portion (see figure below) is offset around the axis of rotation of the rotor (22) with regard to the outlet portion (see figure below) by 210.degree to 270.degree, in figure 3.



angle a +angle b is greater than 210 degree

4. In re claim 2, Ledebuhr et al disclose a metering pump including:

- The tubing bed body member (28), in the inlet region, passes over from the convex shape to a concave shape in a smooth transition, as seen in the sense of rotation, in figure 3.

5. In re claim 4, Ledebuhr et al disclose a metering pump including:

- The inlet region is located with regard to the outlet region such that, if one of the conveyor rollers (one of the 3 rollers) is in the inlet region , another conveyor roller (one of the 3 rollers) simultaneously is in the outlet region (clearly seen in figure 3).

6. In re claim 5, Ledebuhr et al disclose a metering pump including:
   - The tubing bed body member (28) is designed essentially in the shape of an omega . Please note that the shape of the tubing bed member (28) of the applicant shown in figure 3 is not different from that of Ledebuhr et al shown as (28) in figure 3.
7. In re claim 6, Ledebuhr et al disclose a metering pump including:
   - The tubing bed body member (28) at least partially and coaxially enlaces the rotor (22),in figure 3.
8. In re claim 12, Ledebuhr et al disclose a metering pump including:
   - At least one flexible tubing section (62) is led into and out of the tubing bed body member (28) in substantially tangential direction (clearly seen in figure 3).
9. In re claim 13 Ledebuhr et al disclose a metering pump including:
   - The tubing bed body member (28) coaxially enlaces the rotor (20) at least by an amount greater than 180 degrees ,in figure 3.
10. In re claim 1, Streicher discloses a metering pump including
    - Peristaltic pump in figures 1, with a rotor (33) received in a housing (31), which is provided with at least one rotatably supported conveyor roller (52.1), as well as with a tubing holder (31 and 48 together form a tube

holder) for receiving of at least one flexible tubing section (32) that is squeezable by the conveyor roller (52.1) for peristaltically conveying a medium, characterized in that the tubing holder is provided with a tubing bed body member (48 itself is tubing bed member) for receiving of at least one flexible tubing section (32), whereby the inlet and/or the outlet region of the tubing bed body member is designed such that the cross sectional area of the tubing relevant for the conveying is continuously decreased and increased (clearly seen in figure 4.1-4.4), respectively, by the conveyor roller (52.1) rolling over the particular tube section (32), the rotor (33) is provided with three conveyor rollers (52.1-52.3), and the inlet portion is offset around the axis of rotation of the rotor (33) with regard to the outlet portion by 210.degree to 270.degree (clearly seen in figure 16).

11. In re claim 2, Streicher discloses a metering pump including:

- The tubing bed body member (48), in the inlet region, passes over from the convex shape to a concave shape in a smooth transition, as seen in the sense of rotation (clearly seen in figure 16).

12. In re claim 3 and 15, Streicher discloses a metering pump including:

- The tubing bed body member (48) in the outlet region passes over from a concave shape to a convex shape in a smooth transition(clearly seen in figure 16).

13. In re claim 4, Streicher discloses a metering pump including:

- The inlet region is located with regard to the outlet region such that, if one of the conveyor rollers (52.2) is in the inlet region , another conveyor (52.3) simultaneously is in the outlet region, in figure 6.

14. In re claim 5, Streicher discloses a metering pump including:

- The tubing bed body member (48) is designed essentially in the shape of an omega, in figure 16.

15. In re claim 6, Streicher discloses a metering pump including:

- The tubing bed body member (48) at least partially and coaxially enlaces the rotor (33),in figure 16.

16. In re claim 8 Streicher discloses a metering pump including:

- The tubing bed body member (48) is designed such that its dimensional stability and fixation at the support frame (1) is supported, in addition to the elastically resilient inherent tenseness of the legs (column 3,lines 25), by the mutual force action of the conveyor roller (52.1-52.3) and the squeezing tube sections respectively (inherently).

17. In re claim 12, Streicher discloses a metering pump including:

- At least one flexible tubing section (32) is led into and out of the tubing bed body member (48) in substantially tangential direction (clearly seen in figure 16).

18. In re claim 13 Streicher discloses a metering pump including:

- The tubing bed body member (48) coaxially enlaces the rotor (33) at least by an amount greater than 180 degrees ,in figure 3.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. Claims 7, 9,10,11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ledebuhr et al or Streicher in view of Davis et al. (US patent number 7118203).

21. In re claim 7, Streicher as applied to claim 2 disclose the claimed invention including:

- The tubing bed body member (32), together with a support frame (shown in figure 16), constitutes the housing of the pump (1) , whereby the tubing bed body member (48) has two legs at its end and are resiliently elastic in radial direction (column 3,lines 25). Streicher,however fail to disclose the following limitation which is taught by Davis et al :
- The two legs are provided with notch elements (clearly seen in figure 7) , by means of which the tubing bed body member (62) can be snapped into cut-outs on the support frame (64) in the sense of a snap-on connection (figure 6 and 7).

22. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the pump of Streicher by including elastic snap on the tube bed member as taught by Davis et al. for ease of assembly.

23. In re claim 9, Streicher in view of Davis et al. disclose the claimed invention:

Davis et al. disclose:

- The tubing bed body member (62) is provided with a plurality of radially and/or axially extending reinforcing ribs (clearly shown in figure 8 and 9). It would have been obvious to one having ordinary skill in the art to provide ribs in order to easily guide the tubes.

24. In re claim 10, Streicher in view of Davis et al. disclose the claimed invention:

Davis et al. disclose:

- The inner side of the tubing bed body member (62) is provided with a multitude of groove-like recesses (150) for receiving and guiding a plurality of tubing (46),in figure 6 and 8. It would have been obvious to one having ordinary skill in the art to provide recess in order to easily guide the tubes

25. In re claim 11, Streicher in view of Davis et al. disclose the claimed invention:

Streicher disclose:

- Each conveyor roller (52) is in the shape of a barrel and extends in axial directions, in figure 12.

Davis et al. disclose:

- Each conveyor roller (92) is in the shape of a barrel and extends in axial directions over the groove-like recesses (clearly seen in figure 5).

Response to Arguments

26. Applicant's arguments with respect to claims 1 -14 have been considered but are not persuasive.

27. In regards to claim 14 applicant ,in page 4 paragraph 2 argued that the actual inlet and the outlet regions -i.e. the locations at which the tubing is actually squeezed by the rollers are offset by about 200 or less. Examiner respectfully disagrees. Claim 14 which was dependent on claim 1 (now incorporated to claim1) and claim 1 doesn't specifically define that the inlet and outlet region are the locations at which the tubing is actually squeezed by the rollers. As clearly shown in the annotated drawing the angle is 210 degree or more.

28. In regards to claim 4 (see page 7 paragraph 1) applicant argues that the device of Ledebuhr is not capable of squeezing the tube at both the inlet and the outlet simultaneously. Examiner respectfully disagrees since claim 4 does not have the limitation in which the roller is squeezing the tube at both the inlet and the outlet simultaneously. Claim 4 merely states that a roller is disposed simultaneously in both the inlet region and the outlet region of the tubing bed body member.

29. In regards to applicant's argument to claim 5 (see page 7,paragraph 2) please note that the shape shown in figure 3 of Ledebuhr can be considered as

an omega shape since such configuration in peristaltic pumps is also accepted as an omega shape (as an example please refer to US patent number 5482447 to Sunden et al,figure 1 and column 12,lines 10-15).

30. Applicant's amendment to claims 8,12,13,14 has overcome the rejection under 35 USC § 112 and thus the rejection is withdrawn.

Conclusion

30. Applicant's amendment and the fact that the argument to the rejection of the claims is not persuasive necessitated that THIS **ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amene S. Bayou whose telephone number is 571-270-3214. The examiner can normally be reached on Monday-Thursday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devon C Kramer/
Supervisory Patent Examiner, Art Unit 3746